

1 Amendments to the Specification

2 Paragraph beginning on page 15, line 17 and ending on page 16, line
3 15 is replaced with the following rewritten paragraph.

4
5 In step 1, a catalysis solution is first formed from water, an
6 acid, and an oxidizer. The acid is preferably hydrochloric acid
7 HCl, but other acids may be used, such as sulfuric acid H_2SO_4 ,
8 nitric acid HNO_3 , perchloric acid $HClO_4$, phosphoric acid H_3PO_4 ,
9 acetic acid CH_3COOH , formic acid $HCOOH$, tartaric acid $C_4H_6O_6$,
10 methanesulfonic acid CH_3SO_3H , ethylsulfonic acid $C_2H_5SO_3H$, 4-
11 toluenesulfonic acid $C_7H_8SO_3$, and camphorsulfonic acid (CSA). The
12 oxidizer is preferably ammonium peroxydisulfate $(NH_4)_2S_2O_8$, but
13 other oxidizers may be used, such as iron chloride $FeCl_3$ and other
14 peroxydisulfate derivatives such as $Na_2S_2O_8$ and $K_2S_2O_8$. In step 2, a
15 monomer solution is formed from a solution of a nonconducting
16 monomer and an organic solvent. In the preferred form, the monomer
17 is aniline, but other carbon-based organic monomers can be used,
18 such as pyrrole, thiophene, toluidine, anisidine and other
19 derivatives of aniline such as methylaniline, ethylaniline, 2-
20 alkoxyaniline, and 2,5-dialkoxyaniline monomers, for forming
21 polyaniline, polypyrrole, polythiophene, polytoluidine,
22 polyanisidine, polymethylaniline, polyethylaniline, poly(2-
23 alkoxyanilines) and poly(2,5-dialkoxyanilines) respectively. The
24 organic solvent is preferably carbon tetrachloride (CCl_4), but other
25 organic solvents may be used, such as benzene, toluene, chloroform,
26 methylene chloride, xylene, hexane, diethylether, dichloromethane
27 and carbon disulfide. In the preferred form, aniline monomers are
28 dissolved in carbon tetrachloride (CCl_4).